UNITED STATES GOVERNMENT
Memorandum

OC-034-12

DATE: 3 May 2012

REPLY TO
ATTN OF: SID Oversight & Compliance

SUBJECT: (U//FOUO) NSAW SID Intelligence Oversight (IO) Quarterly Report – First Quarter Calendar Year 2012 (1 January – 31 March 2012) – EXECUTIVE SUMMARY

TO: SIGINT Director

I. (U) Overview

(U//FOUO) The attached NSAW SID Intelligence Oversight (IO) Quarterly Report for the First Quarter Calendar Year 2012 (1 January – 31 March 2012) identifies NSAW SID compliance with E.O. 12333, DoD Regulation 5240.1-R, NSA/CSS Policy 1-23, USSID SP0018, and all related policies and regulations.

(U//FOUO) Detailed incident narratives are provided in the attached annexes. The number of incidents in each category and a reference to the annex related to each incident category are contained in the body of the report.

(U//FOUO) As part of SID Oversight and Compliance's (SV) charge to provide comprehensive trends and analysis information as it pertains to incidents of non-compliance, this Executive Summary provides analysis and evaluation of incidents reported throughout the current quarter to better address the "whys" and "hows" behind NSAW SID's compliance posture.

(U//FOUO) Section II, Metrics, has been broken down into several sub-sections: metrics and analysis of NSAW SID-reported incidents by authority, type, root cause, and organization. Also included is an assessment of how incidents were discovered (i.e., methods of discovery) for SID-reported incidents (see **Figure 7**).

(U//FOUO) Significant Incidents of Non-compliance and Report Content follow in Sections III and IV, respectively.

(S//REL) Overall, the number of incidents reported during 1QCY12 increased by 11% as compared to the number of incidents reported during 4QCY11. This included a rise in the number of E.O. 12333 incidents, as well as for incidents across all FISA authorities. The majority of incidents in all authorities were database query incidents due to human error. Of note, S2 continued to be the NSAW SID organization with the largest number of reported incidents (89%), although S2 experienced an overall decrease in reported incidents. SV noted an overall improvement in timeliness regarding 1QCY12 IO Quarterly Report submissions from the SID elements.

II. (U) Metrics

a. (U//FOUO) NSAW SID-reported Incidents by Authority

(TS//SI//REL TO USA, FVEY) **Figures 1a-b** compares all categories of NSAW SID-reported incidents (collection, dissemination, unauthorized access, and retention) by Authority for 2QCY11 – 1QCY12. From 4QCY11 to 1QCY12, there was an overall increase in incidents of 11%. There was also an increase of 11% for both E.O. 12333 and FISA incidents. The increase in incidents reported for 1QCY12 was due to an increase in the number of reported Global System for Mobile Communications (GSM) roamer[1] incidents, which may be attributed to an increase in Chinese travel to visit friends and family for the Chinese Lunar New Year holiday.

(U//FOUO) **Figure 1a**: Table of the Number of NSAW SID-reported Incidents by Authority

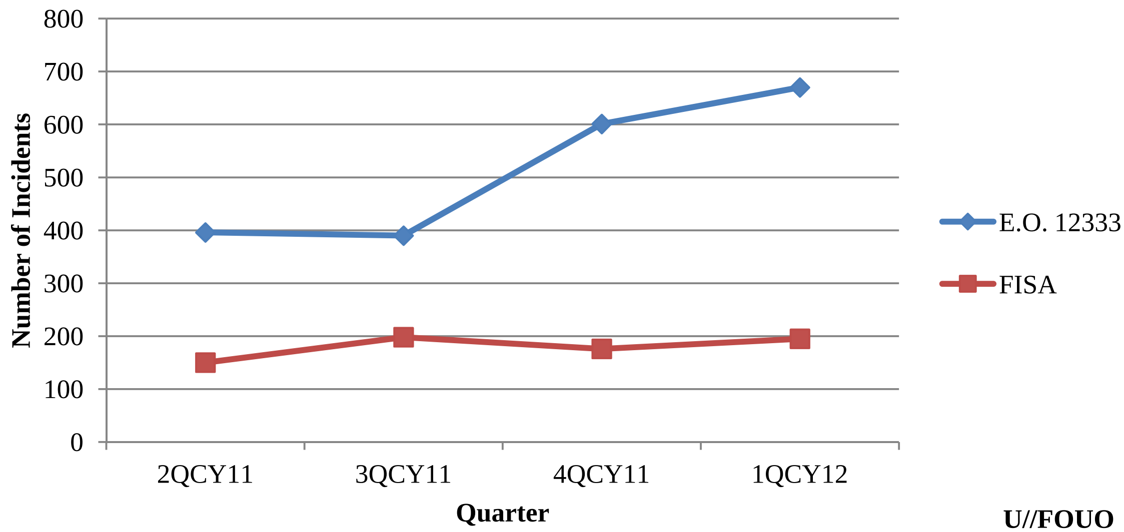
(U//FOUO)

	2QCY11	3QCY11	4QCY11	1QCY12
E.O. 12333	396	390	601	670
FISA	150	198	176	195
TOTAL	**546**	**588**	**777**	**865**

(U//FOUO)

(U//FOUO) **Figure 1b**: Line Graph of the Number of NSAW SID-reported Incidents by Authority

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(TS//SI//NF) **FISA Incidents:** As reflected in **Figures 1a-b**, during 1QCY12, NSAW SID reported a total of 195 FISA incidents, 185 of which were associated with unintentional collection. NSAW SID also reported 6 incidents of unintentional dissemination under FISA authority and 4 incidents of unauthorized access to Raw

[1] (U//FOUO) Roaming incidents occur when a selector associated with a valid foreign target becomes active in the U.S.

SIGINT FISA data. **Figure 2** illustrates the most common root causes for incidents involving FISA authorities as determined by SV.

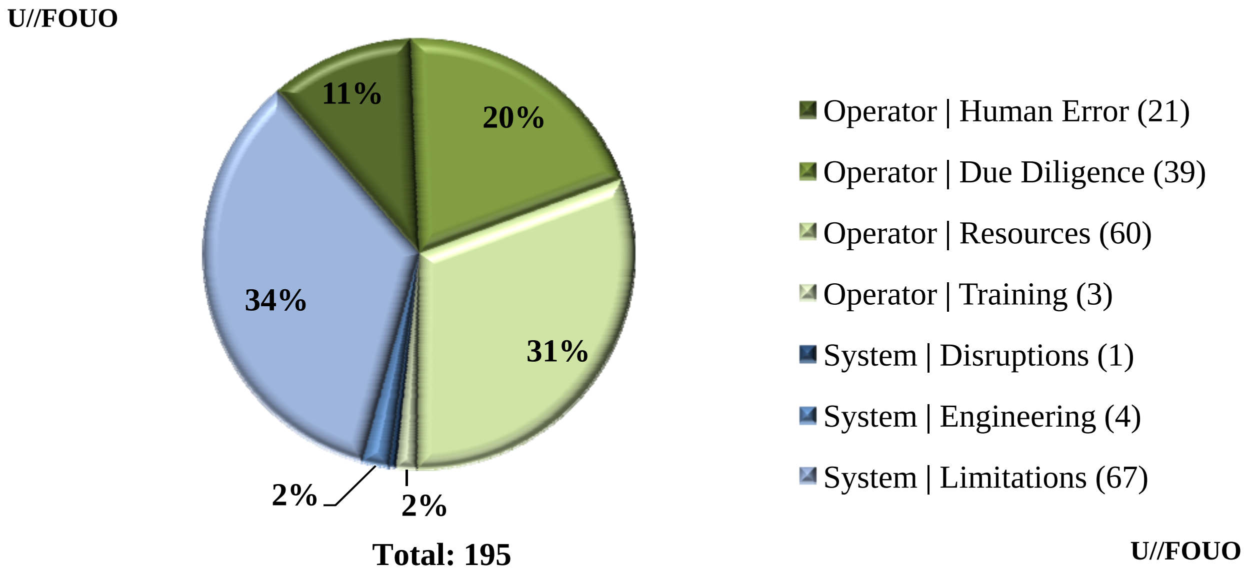
- 63% (123) of 1QCY12 FISA incidents can be attributed to Operator Error as the root cause, and involved:
    - Resources (i.e., inaccurate or insufficient research information and/or workload issues (60);
    - Lack of due diligence (i.e., failure to follow standard operating procedures) (39);
    - Human error (21) which encompassed:
        - Broad syntax (i.e., no or insufficient limiters / defeats / parameters) (12);
        - Typographical error (6);
        - Query technique understood but not applied (2); and
        - Incorrect option selected in tool (1); and
    - Training and guidance (i.e., training issues) (3).

(U//FOUO) The Resources root cause category accounted for the largest percentage of Operator Error incidents under FISA authorities for 1QCY12. Analysis identified that these incidents could be reduced if analysts had more complete and consistent information available about selectors and/or targets at the time of tasking and if analysts consistently applied rules for conducting queries.

- 37% (72) of 1QCY12 FISA incidents can be attributed to System Error as the root cause, and involved:
    - System limitations (i.e., system lacks the capability to 'push' real-time travel data out to analysts, system/device unable to detect changes in user) (67);
    - System engineering (i.e., system/database developed without the appropriate oversight measures, data flow issues, etc.) (4); and,
    - System disruptions (i.e., glitches, bugs, etc.) (1).

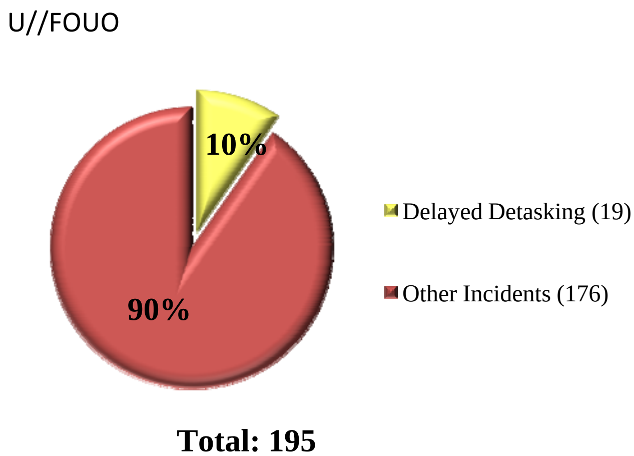
(U//FOUO) The System Limitations root cause category accounted for the largest percentage of System Error incidents under FISA authorities for 1QCY12. The largest number of incidents in the System Limitations category account for roamers where there was no previous indications of the planned travel. These incidents are largely unpreventable. Consistent discovery through the Visitor Location Register (VLR) occurs every quarter and provides analysts with timely information to place selectors into candidate status or detask. Analysis identified that these incidents could be reduced if analysts removed/detasked selectors more quickly upon learning that the status of the selector had changed and more regularly monitored target activity. This analysis indicates that continued research on ways to exploit new technologies and researching the various aspects of personal communications systems to include GSM, are an important step for NSA analysts to track the travel of valid foreign targets.

(U//FOUO) **Figure 2**: 1QCY12 FISA Incidents – Root Causes

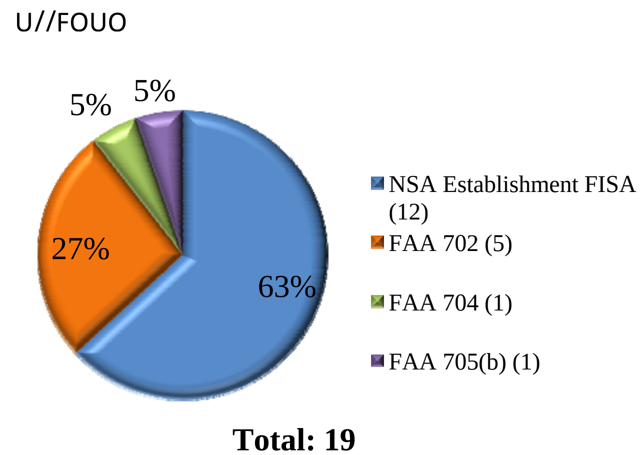


(TS//SI//REL TO USA, FVEY) Delayed Detasking **FISA Incidents:** As reflected in **Figures 1a-b**, during 1QCY12, NSAW SID reported a total of 195 FISA incidents. 19 (10%) of the total FISA incidents were associated with detasking delays. Of the 19 delayed detasking incidents, 12 (63%) of these incidents occurred under NSA FISA Authority, 5 (27%) occurred under FAA 702 Authority, 1(5%) occurred under FAA 704 Authority, and 1 (5%) occurred under FAA 705(b) Authority. **Figure 3a** illustrates the detasking delay incidents versus all other FISA incidents reported during 1QCY12. **Figure 3b** illustrates the detasking delay incidents by FISA Authority reported during 1QCY12.

(U//FOUO) Figure 3a: 1QCY12 Detasking FISA Incidents vs. All other FISA incidents



(U//FOUO) Figure 3b: 1QCY12 FISA Incidents by Authority – Delayed Detaskings

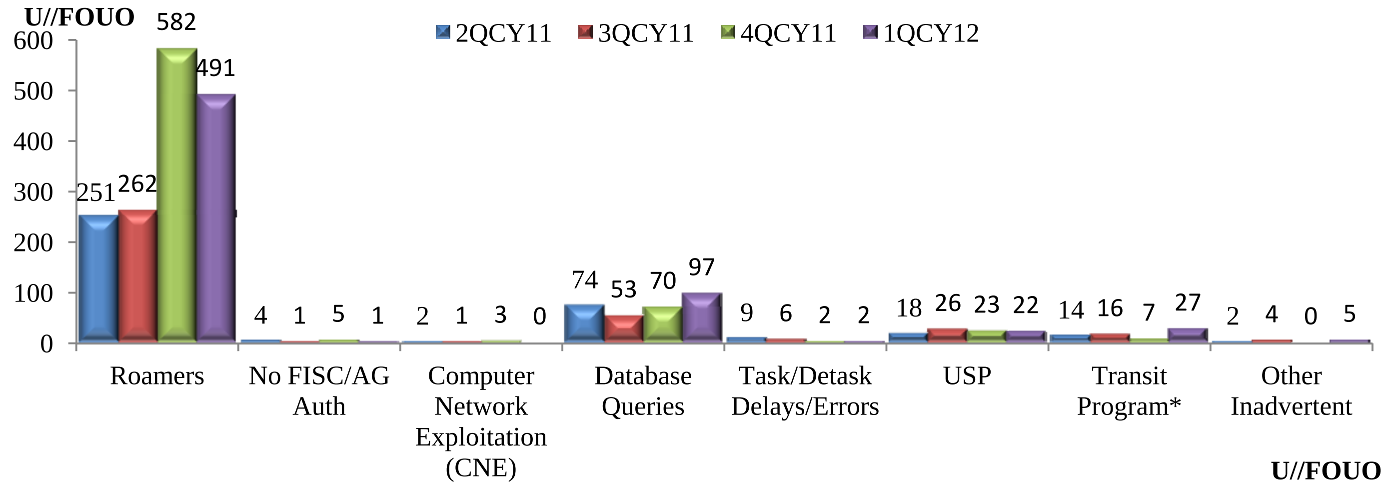


(TS//SI//REL TO USA, FVEY) As depicted in Figures 3a and 3b, of the 19 delayed detasking FISA incidents, 15 (79%) resulted from a failure to detask all selectors, 2 (11%) resulted from analyst not detasking when required, 1 (5%) resulted from partner agency error, and 1 (5%) resulted from all tasking not terminated (e.g., dual route).

b. NSAW SID-reported Collection Incidents by Sub-Type and Authority

(U//FOUO) **Figures 4a-b** depicts NSAW SID-reported collection incidents by Authority (E.O. 12333 and all FISA Authorities), and identifies the primary sub-types for those incidents. An explanation of the more prominent collection incident sub-types follows the graphs.

(U//FOUO) **Figure 4a**: NSAW SID-reported Collection Incidents Under E.O. 12333 Authority

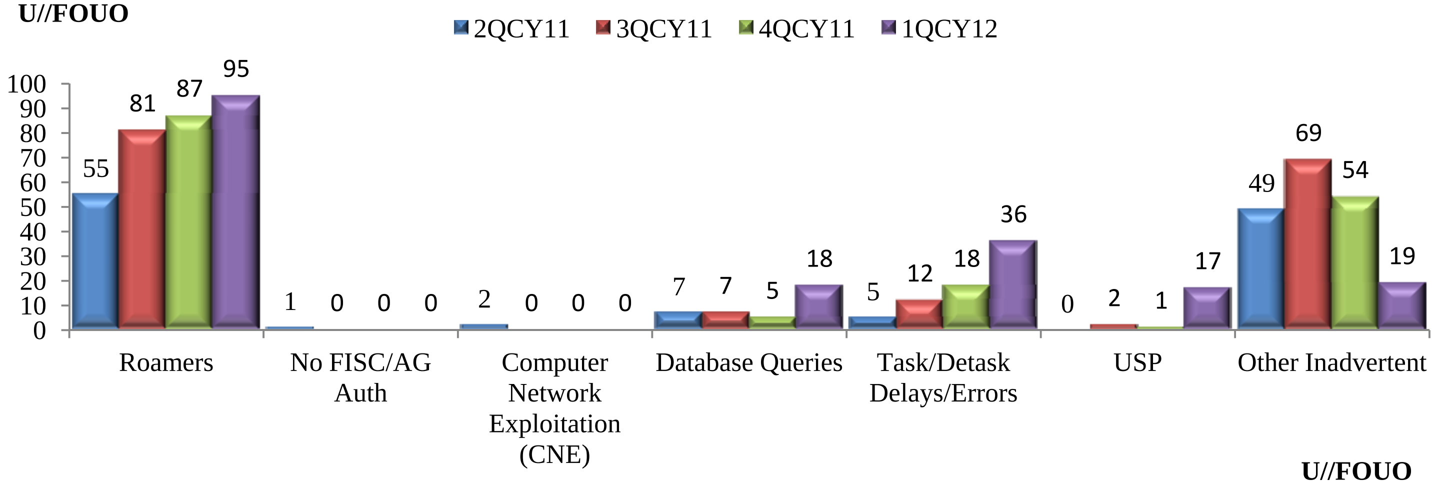


(U//FOUO) **Figure 4a:** During 1QCY12, NSAW SID reported a 39% increase of database query incidents under E.O. 12333 Authority. Human Error accounted for 74% of E.O.12333 database query incidents.

(TS//SI//REL TO USA, FVEY) **International Transit Switch Collection*:** International Transit switches, FAIRVIEW (US-990), STORMBREW (US-983), ORANGEBLOSSOM (US-3251), and SILVERZEPHYR (US-3273), are Special Source Operations (SSO) programs authorized to collect cable transit traffic passing through U.S. gateways with both ends of the communication being foreign. When collection occurs with one or both communicants inside the U.S., this constitutes inadvertent collection. From 4QCY11 to 1QCY12, there was an increase of transit program incidents submitted from 7 to 27, due to the change in our methodology for reporting and counting of these types of incidents. (*See Annex G in SID's 1QCY12 IO Quarterly Report for additional details regarding these incidents.)

(U//FOUO) **Figure 4b**: NSAW SID-reported Collection Incidents Under All FISA Authorities

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(U//FOUO) **Figure 4b:** During 1QCY12, NSAW SID reported an increase of 9% of roamer incidents under all FISA Authorities. There was also a 260% increase in database query FISA Authority incidents during 1QCY12. Human Error accounted for the majority of all FISA Authorities database query incidents (74%).

(U//FOUO) **Roamers:** Roaming incidents occur when valid foreign target selector(s) are active in the U.S. Roamer incidents continue to constitute the largest category of collection incidents across E.O. 12333 and FAA authorities. Roamer incidents are largely unpreventable, even with good target awareness and traffic review, since target travel activities are often unannounced and not easily predicted.

(S//SI//NF) **Other Inadvertent Collection:** Other inadvertent collection incidents account for situations where targets were believed to be foreign but who later turn out to be U.S. persons and other incidents that do not fit into the previously identified categories.

(TS//SI//REL TO USA, FVEY) **Database Queries:** During 1QCY12, NSAW SID reported a total of 115 database query incidents across all Authorities, representing a 53% increase from 4QCY11. E.O. 12333 Authority database query incidents accounted for 84% (97) of the total, and all FISA Authorities database query incidents accounted for 16% (18).

(U//FOUO) **Figure 5** illustrates the most common root causes for incidents involving database queries as determined by SV.

- 99% (114) of the 1QCY12 database query incidents are attributed to Operator Error as the root cause, and involved:
    - Human error (85) which encompassed:
        - Broad syntax (i.e., no or insufficient limiters / defeats / parameters) (55);
        - Typographical error (17);
        - Boolean operator error (6);
        - Query technique understood but not applied (4);
        - Not familiar enough with the tool used for query (2); and

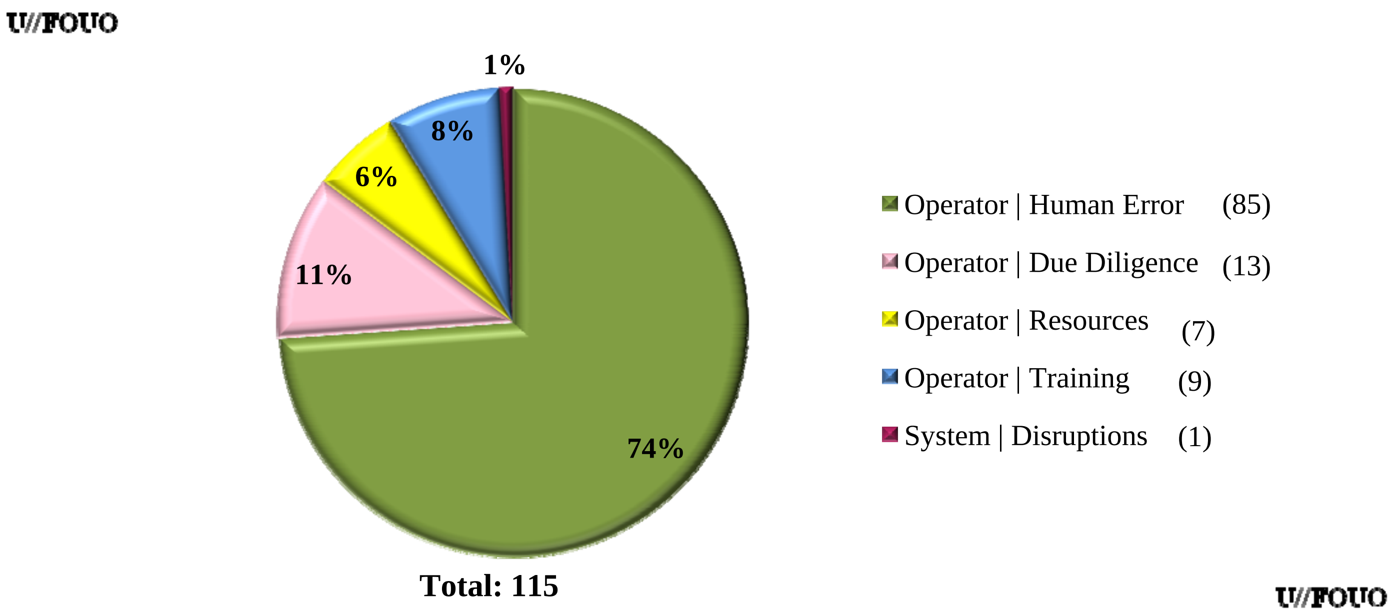
- Incorrect option selected in tool (1)
- Lack of due diligence (i.e., failure to follow standard operating procedure) (13)
- Training and guidance (i.e., training issues) (9); and
- Resources (i.e., inaccurate or insufficient research information and/or workload issues) (7).

(U//FOUO) The remaining 1 database query incident can be attributed to System Error as the root cause and occurred due to a mechanical error with the tool.

(U//FOUO) Analysis identified that the number of database query incidents could be reduced if analysts more consistently applied rules/standard operating procedures (SOPs) for conducting queries.

(S//SI//NF) Auditors continue to play an important role in the discovery of database query incidents, identifying 70 (61%) of the 115 reported database query incidents.

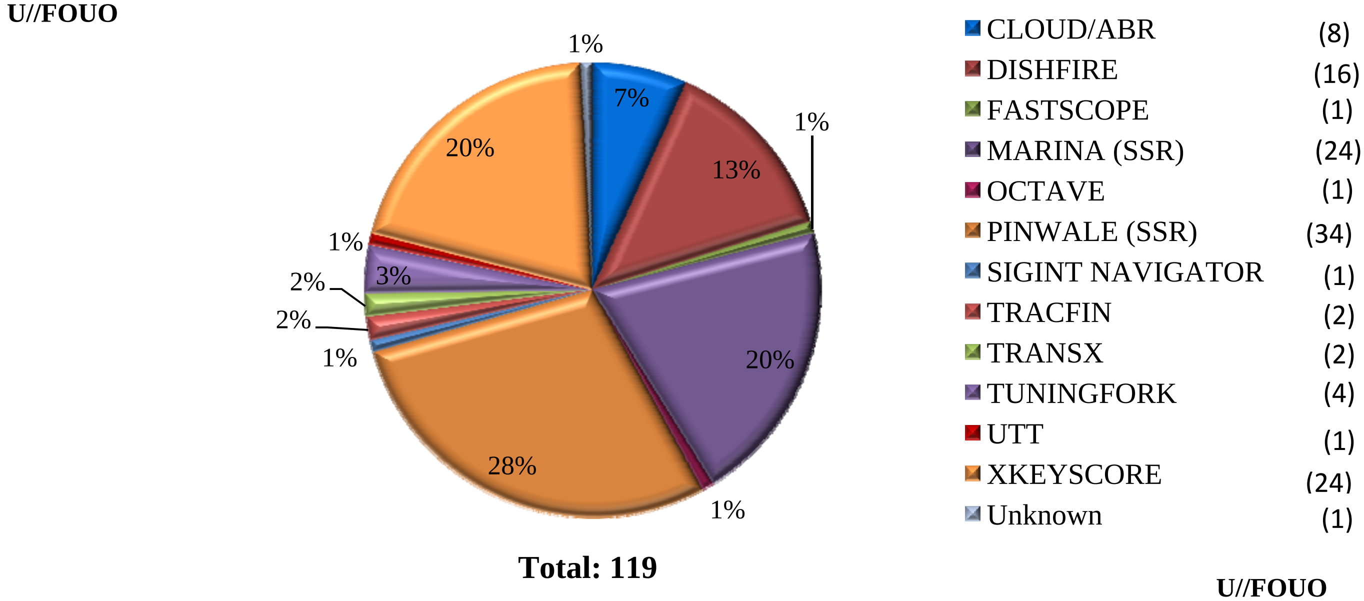
(U//FOUO) **Figure 5**: 1QCY12 Database Query Incidents – Root Causes



(TS//SI//REL TO USA, FVEY) Of the 115 database query incidents reported for 1QCY12, **Figure 6** identifies the database involved and the associated percentage of the total. Databases considered to be Source Systems of Record (SSR) have been labeled as such.

(TS//SI//REL TO USA, FVEY) Note that the total number of databases involved in the database query incidents in **Figure 6** does not equal the number of database query incidents reflected in Figure 5 or in the 1QCY12 SID IO Quarterly Report because a database query incident may occur in more than one database.

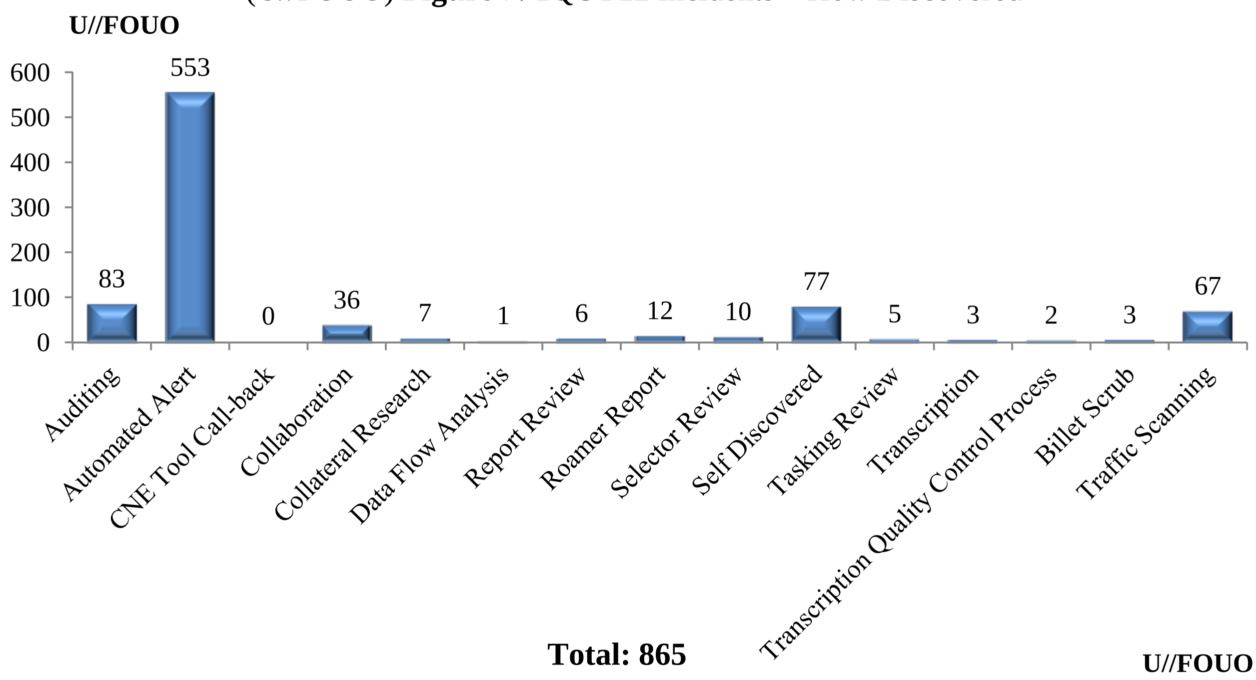
(U//FOUO) **Figure 6**: 1QCY11 Database Query Incidents – Database(s) Involved



(U//FOUO) NSAW SID-reported Incidents – Method of Discovery

(U//FOUO) **Figure 7** depicts the most prominent method(s) of discovery for incidents reported by NSAW SID elements for 1QCY12. As SV's assessment of root causes matures, and as corrective measures are implemented, identification of how incidents are discovered will provide additional insight into the effectiveness of those methods.

(U//FOUO) **Figure** 7: 1QCY12 Incidents – How Discovered

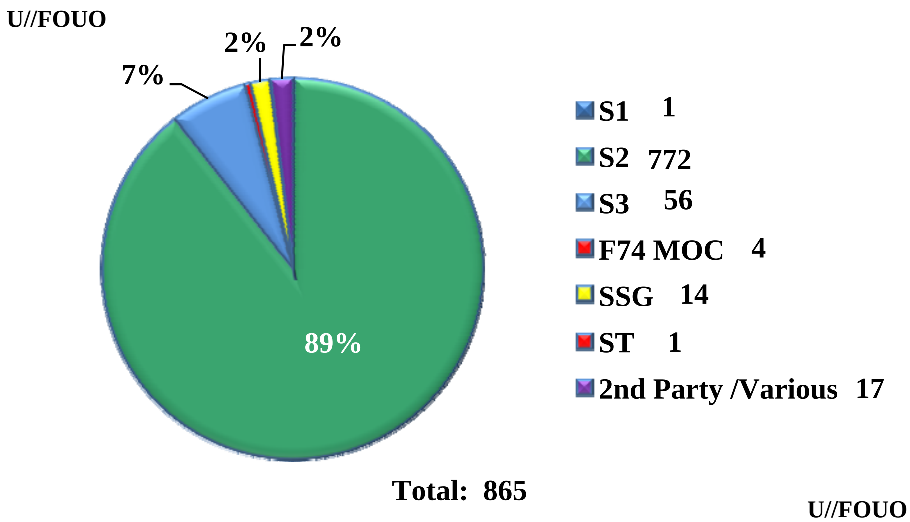


(U//FOUO) For 1QCY12, of the 865 reported incidents, 553 (64%) were discovered by automated alert. 444, (80%) of the 553 incidents that were discovered by automated alert occurred via the VLR and other analytic tools, such as SPYDER, CHALKFUN, and TransX.

c. (U//FOUO) NSAW SID-reported Incidents by Organization

(U//FOUO) **Figure 8** illustrates the total 1QCY12 NSAW SID-reported incidents by primary SID Deputy Directorate (DD) level organization. S2, having the largest NSAW SID contingent of reported incidents, accounted for 89% of the total incidents for the quarter, a proportion consistent with the overall size of the S2 organization. As compared to 4QCY11, S2 experienced an overall 8% reduction in incidents occurrences.

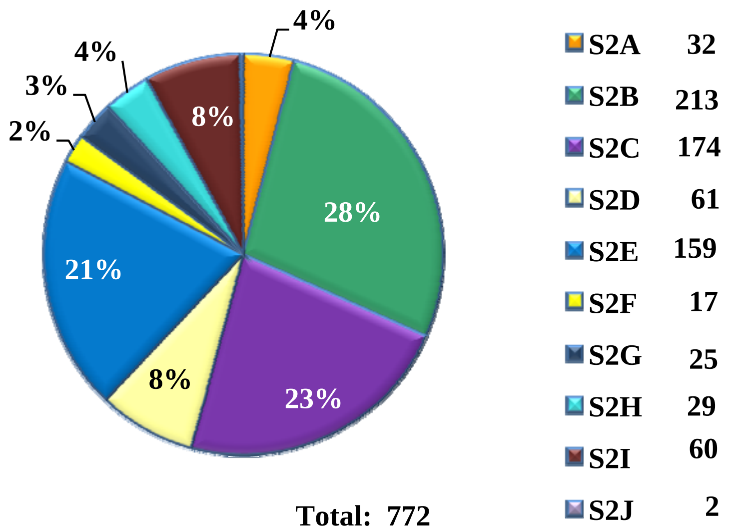
(U//FOUO) **Figure 8**: 1QCY12 Incidents by NSAW SID Organization



(U//FOUO) **Figure 9** provides a look into S2 (by Product Line) as the NSAW SID organization with the largest number of reported incidents. For 1QCY12, three Product Lines accounted for 72% of S2's reported incidents. These Product Lines were: the and Korea Division (S2B) with 28% of the reported incidents, the International Security Issues Division (S2C) with 23% of the reported incidents, and the China, and the Office of Middle East & Africa (S2E) with 21% of the incidents. As compared to 4QCY11, this resulted in an increase of 16% for S2B, a reduction of 35% for S2C, and an increase of 9% for S2E. The number of incidents reported by the remaining seven Product Lines held relatively steady from 4QCY11 to 1QCY12.

(U//FOUO) **Figure 9**: 1QCY12 S2 Incidents by Product Line

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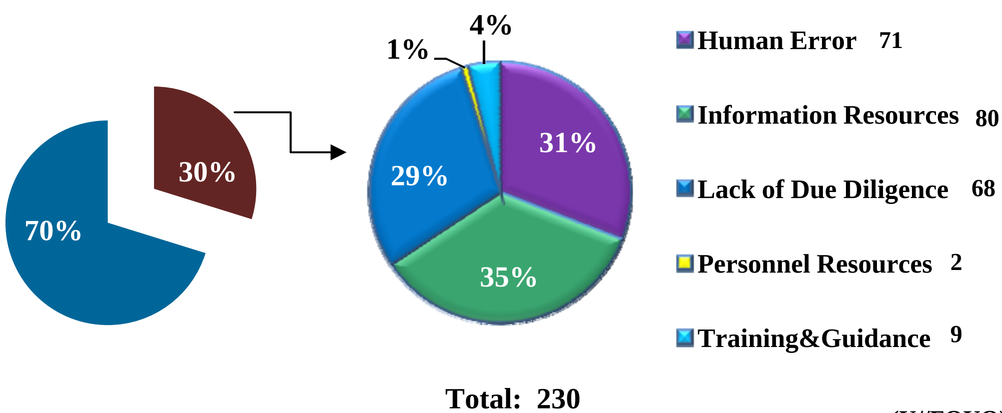


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(U//FOUO) **Figures 10a-b** illustrates the operator related (**Figure 10a**) and system related (**Figure 10b**) root causes associated with the 772 incidents reported by S2. 30% of the incidents were due to operator related errors that resulted in an incident. 70% of the incidents were due to system related issues that resulted in an incident.

(U//FOUO) **Figure 10a**: 1QCY12 S2 Incidents – Operator Related Root Causes

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(U//FOUO) 30% of the S2-reported incidents during 1QCY12 are attributed to Operator Error as the root cause, and involved:

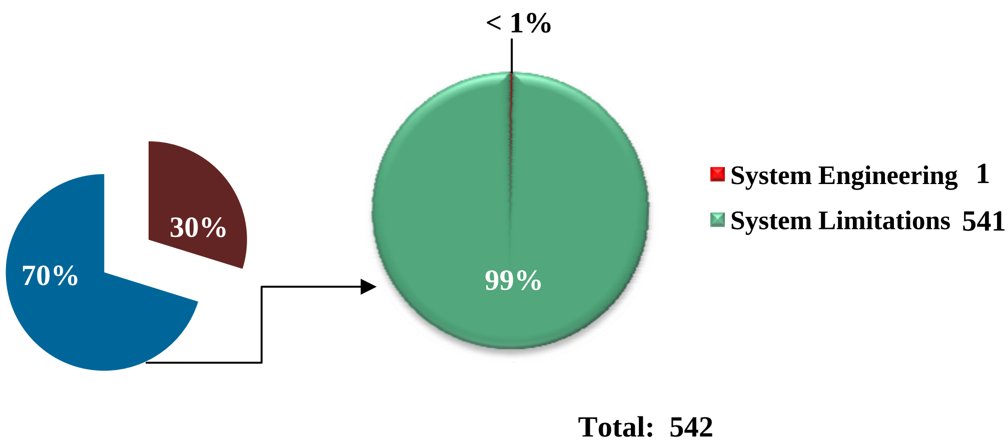
- Resources (i.e., inaccurate or insufficient research information and/or workload issues, and personnel resource issues) (82);

- Human error (i.e., selector mistypes, incorrect realm, or improper query) (71);
- Lack of due diligence (i.e., failure to follow standard operating procedures) (68); and
- Training and guidance (i.e., training issues) (9).

(U//FOUO) Analysis found that analysts could reduce the number of incidents if there was more comprehensive research information available at the time of tasking as well as through better use of defeats, more careful review of data entry to avoid typographical errors and omissions, and by following SOPs more consistently.

(U//FOUO) **Figure 10b**: 1QCY12 S2 Incidents – System Related Root Causes

(U//FOUO)



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(U//FOUO) 70% of the S2-reported incidents during 1QCY12 are attributed to system issues as the root cause, and involved:

- System limitations (i.e., system lacks the capability to 'push' real-time travel data out to analysts, system/device unable to detect changes in user) (541); and
- System engineering (i.e., data tagging, configuration, design flaws, etc.) (1).

(TS//SI//REL TO USA, FVEY) System Limitations, the largest percentage of System Error root cause, can be attributed to situations where a valid foreign target is found roaming in the United States without indication in raw traffic.

III. (U) Significant Incidents of Non-compliance

(TS//SI//NF) **Business Record (BR) FISA**. As of 16 February 2012, NSA determined that approximately 3,032 files containing call detail records potentially collected pursuant to prior BR Orders were retained on a server and been collected more than five years ago in violation of the 5-year retention period established for BR collection. Specifically, these files were retained on a server used by technical personnel working with the Business Records metadata to maintain documentation of provider feed data formats and performed background analysis to document why certain contain chaining rules were created. In addition to the BR

work, this server also contains information related to the STELLARWIND program and files which do not appear to be related to either of these programs. NSA bases its determination that these files may be in violation of docket number BR 11-191 because of the type of information contained in the files (i.e., call detail records), the access to the server by technical personnel who worked with the BR metadata, and the listed "creation date" for the files. It is possible that these files contain STELLARWIND data, despite the creation date. The STELLARWIND data could have been copied to this server, and that process could have changed the creation date to a timeframe that appears to indicate that they may contain BR metadata. Additional details regarding this incident can be found in the "Bulk Metadata FISA" Annex, ANNEX R (Item R1) in SID's 1QCY12 IO Quarterly Report.

(S//SI//REL TO USA, FVEY) **Detasking Delay**. Four selectors [redacted] remained active after multiple indications were received that the target held a U.S. green card. On 09 March 2012, a South Asia Language Analysis Branch (S2A51) senior linguist was preparing [redacted] Division) selectors for OCTAVE migration when it was discovered that the tasking record for [redacted] showed that there were four selectors [redacted] that were in active status even though his tasking file indicated he held a U.S. green card as of 03 October 2011. On 09 March 2012, the S2A51 senior linguist detasked the four selectors, and on 13 March 2012, the S2A51 senior linguist requested the 881 cuts in NUCLEON based on collection from those four selectors be purged. On 13 March 2012, a senior reporter in the [redacted] Reporting Branch (S2A52) researched S2A52's locally held file of [redacted] who hold U.S. person status and learned that an S2A52 analyst had indications in intercept on 09 September 201 [redacted] might have a U.S. green card. It was also recorded in the same S2A52 file that S2A52 had submitted a request to the Department of Homeland Security (DHS) [redacted] (N.B., the date of the S2A52 request to DHS was not recorded) and learned from DHS on 28 September 2011 that [redacted] had obtained a U.S. green card as of [redacted] 2010. The S2A52 senior reporter then checked ANCHORY and discovered that S2A52 had issued 32 reports between [redacted] 2010 and [redacted] 2011. On 14 March 2012, S2A5 submitted a request for Retroactive Dissemination Authority for the 32 reports which contained the name of [redacted] The Customer Relationships, Information Sharing Services Branch (S12) approved ISS/BDA-068-12 on 16 March 2012. Serialized dissemination of U.S. person information did occur. On 13 March 2012, the S2A51 senior linguist who found that these numbers [redacted] had not been detasked reminded the other two members of the Governmental Unified Targeting Tool (UTT) Group for S2A5 to check all S2A5 databases for [redacted] officials who have U.S. (and Second Party person) status before submitting selectors for tasking. Additional details regarding this incident can be found in the Unintentional Collection under E.O. 12333 Authority Annex, "Collection as a Result of Tasking Errors or Detasking Delays", ANNEX E (Item E1) and in the "Unintentional Dissemination of U.S. Person Information Collected Under E.O. 12333, FISA, and FAA Authorities", Annex M (Item M15) in SID's 1QCY12 IO Quarterly Report.

(C//REL TO USA, FVEY) **Unauthorized Access**. On 29 December 2011, a Cryptanalysis and Exploitation (CES)/Office of Target Pursuit (S31174) Branch Chief discovered that CES personnel had likely been inappropriately granted access to NSA Establishment FISA data. Multiple external factors contributed to this situation. First, in 2002, RAGTIME was changed to encompass both NSA Establishment FISA and FBI FISA, but due to insufficient notice regarding this modification, CES continued to apply the earlier rule that RAGTIME applied only to NSA Establishment FISA data. Second, CES relied on the RAGTIME label in CASPORT for granting access to NSA Establishment FISA data but discovered that CASPORT does not accurately reflect NSA Establishment FISA briefing status. Third, CASPORT often lists NSA-FISA in the

"Oversight" section even though this has nothing to do with a particular user's access. CES has alerted its workforce to look in the CASPORT "Briefing" section for the NSA Establishment FISA entry and CES-controlled software is being updated regarding data access control. Additional details regarding this incident can be found in the "Unauthorized Access to Raw SIGINT" Annex, ANNEX P (Item P2) in SID's 1QCY12 IO Quarterly Report.

(U) Report Content

- **Upcoming Initiatives**

(U//FOUO) During CY12, SV plans to develop 'score cards' to capture and illustrate an organization's reported quarterly activities. SV plans to use this information during scheduled feedback sessions with SID reporting organizations to provide a detailed view into specific areas of high interest or concern arising from analyzing IO Quarterly Report metrics.

- **NSAW SID 1QCY12 IOQ Report Challenges:**

(U//FOUO) SV noted an overall improvement in timeliness regarding 1QCY12 IO Quarterly Report submissions from the SID elements. SV received late submissions from SIGDEV Strategy & Governance (SSG) and SID/Deputy Directorate for Data Acquisition (S3), delaying SV's preparation of the NSAW SID IO Quarterly Report. SV will continue to focus on outreach with SSG and S3 in order to ensure more complete and timely report submissions.

[redacted]
Chief, SID Oversight & Compliance